

Recent Advancements of Verification Capability for R2O Testing and Evaluation within the Developmental Testbed Center

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ABSTRACT

Robust testing and evaluation of research innovations is a critical component of the Research-to-Operations (R2O) process and is performed for NCEP by the Developmental Testbed Center (DTC). At the foundation of the DTC testing and evaluation (T&E) system is the Model Evaluation Tools (MET), which is also supported to the community through the DTC. The verification team within the DTC has been working closely with DTC teams as well as the operational community to enhance MET to better support both internal T&E activities and testing performed in other testbeds (e.g. Hazardous Weather Testbed, Hydrometeorology Testbed). This presentation will demonstrate several advancements that will be available in the next MET release, which is scheduled for this summer. Specifically, we will demonstrate a new automated regridding capability, the use of MET on Gridpoint Statistical Interpolation (GSI) data assimilation diagnostic files, storm following masking regions for tailored verification, the calculation of categorical statistics for tropical cyclone rapid intensification and rapid weakening (RI/RW) events, and the use of Method for Object-based Diagnostic Evaluation – Time Domain (MODE-TD) on different spatial and temporal scales of data.